

แผนการสอนรายหัวข้อ (Topic Module)

หัวข้อ	Case formulation	
รายวิชา	การเข้าใจที่มาที่ไปของอาการ	
ผู้สอน	จว 401 ใช้ในการสอนบรรยายเป็นเวลา 1 ชั่วโมง	
วัตถุประสงค์หัวข้อ	1.เมื่อนิสิตจบการศึกษาหัวข้อนี้แล้วสามารถ 2.สามารถอธิบายปัจจัยที่ทำให้เกิดพยาธิสภาพของผู้ป่วย 3.สามารถเข้าใจที่มาที่ไปของจิตพลวัตของผู้ป่วยได้	
เนื้อหาหัวข้อ	1.ประเภทของการอธิบายจิตพลวัต 2.โครงสร้างทางจิตใจเบื้องต้น	
สื่อการสอน	1.Power point 2.เอกสารประกอบคำสอน	
แผนการสอน	1.อธิบายวัตถุประสงค์	5 นาที
	2.บรรยาย	45 นาที
	3.สรุปและซักถาม	10 นาที
เอกสารประกอบ	1.เอกสารประกอบคำสอนเรื่อง case formulation	
การวัดและการประเมินผล	1.การวัดผลโดยใช้ข้อสอบอัตนัย	
สอดคล้องกับเกณฑ์ความรู้แพทยสภาหัวข้อ	Progression through the life cycle,including birth through senescence	



Case formulation in Psychiatry

นพ.วฤทธ มงคลเนาวรัตน์

Case of Helen

- ▶ Helen was fired from her job one month ago because she started making numerous mistakes and had trouble concentrating.
- ▶ About three months ago she started feeling "down" after a break-up with a man she had been dating for a few months.
- ▶ She has trouble falling asleep and has noticed a significant decline in her appetite. She feels like a failure and believes that no one will want to hire her again.



Case of Helen

- ▶ She has thoughts of committing suicide but admits, "I could never do it."
- ▶ The only thing that seems to help is when she participates in a bible-reading group every Tuesday night. She explains, "During that time I'm more like my old self and at least that night I can sleep."
- ▶ She also reports that her mood improves when she visits her friends.
- ▶ However, she reports such low energy throughout the day that she is unable to schedule a job interview.



Case of Helen

- ▶ She had a similar episode about two years ago after she was laid off from her former job.
- ▶ She reports that it took four months before she began feeling "normal" again and positive about herself.
- ▶ Her history indicates that her mother had severe depression and was hospitalized on several occasions when Helen was young.
- ▶ She describes her as “negative” and often absent in her youth.
- ▶ However, Helen always did well in school and had an active social life.
- ▶ Her work history has been very consistent up to her lay off.



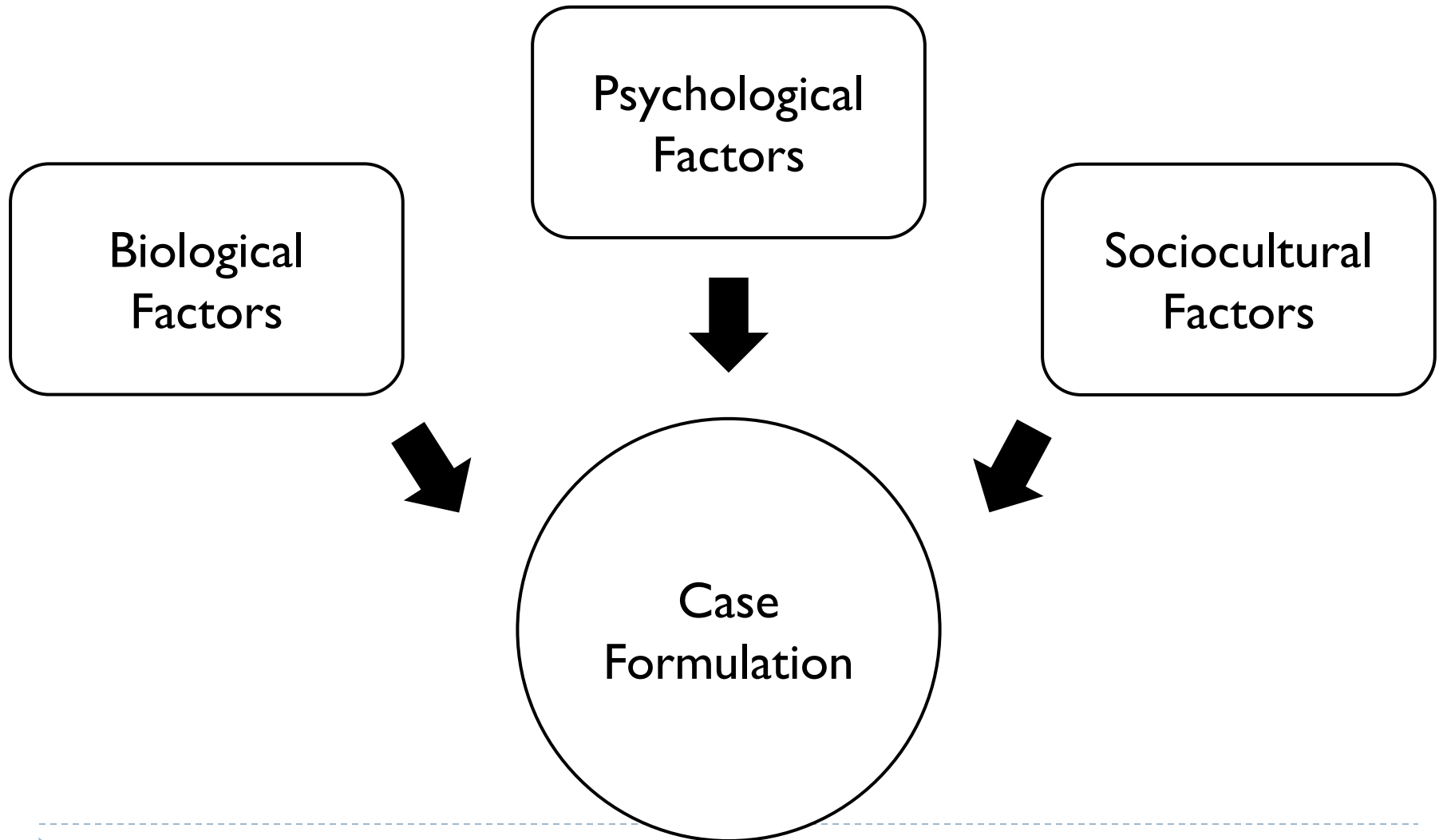
Multiaxial evaluation

- ▶ DSM-IV assessment
- ▶ Axis I Psychiatric illness
- ▶ Axis II Personality disorder/
intellectual disabilities
- ▶ Axis III Physical illness
- ▶ Axis IV Recent psychosocial stressors
- ▶ Axis V Level of function



Code	Description of Functioning
91 - 100	Person has no problems OR has superior functioning in several areas OR is admired and sought after by others due to positive qualities
81 - 90	Person has few or no symptoms . Good functioning in several areas. No more than "everyday" problems or concerns.
71 - 80	Person has symptoms/problems, but they are temporary, expectable reactions to stressors . There is no more than slight impairment in any area of psychological functioning.
61 - 70	Mild symptoms in one area OR difficulty in one of the following: social, occupational, or school functioning. BUT, the person is generally functioning pretty well and has some meaningful interpersonal relationships.
51 - 60	Moderate symptoms OR moderate difficulty in one of the following: social, occupational, or school functioning.
41 - 50	Serious symptoms OR serious impairment in one of the following: social, occupational, or school functioning.
31 - 40	Some impairment in reality testing OR impairment in speech and communication OR serious impairment in several of the following: occupational or school functioning, interpersonal relationships, judgment, thinking, or mood.
21 - 30	Presence of hallucinations or delusions which influence behavior OR serious impairment in ability to communicate with others OR serious impairment in judgment OR inability to function in almost all areas.
11 - 20	There is some danger of harm to self or others OR occasional failure to maintain personal hygiene OR the person is virtually unable to communicate with others due to being incoherent or mute.
1 - 10	Persistent danger of harming self or others OR persistent inability to maintain personal hygiene OR person has made a serious attempt at suicide.

Bio-Psycho-Social model



1. Biological Factors

- ▶ Genetic factors
- ▶ Biochemical Factors
- ▶ Neuropathology
- ▶ Psychoneuroendocrinology
- ▶ Psychoneuroimmunology
- ▶ Sleep neurophysiology



Genetic factors

- ▶ Many major psychiatric disorders have shown to have strong hereditary predispositions.
- ▶ family studies, adoption studies, twin studies
- ▶ In twin studies → concordance rate in MZ > DZ



Genetic factors

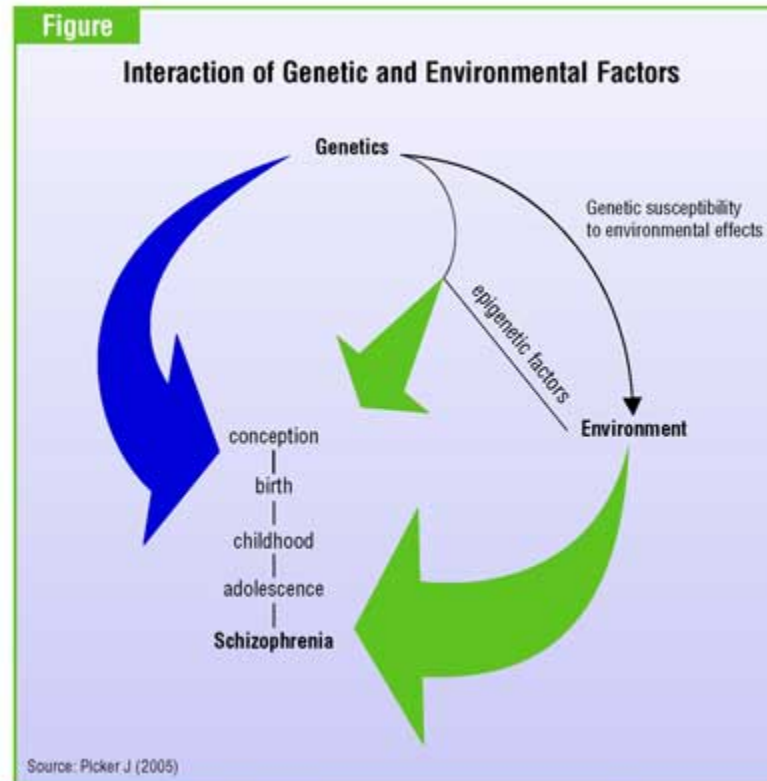
▶ Example

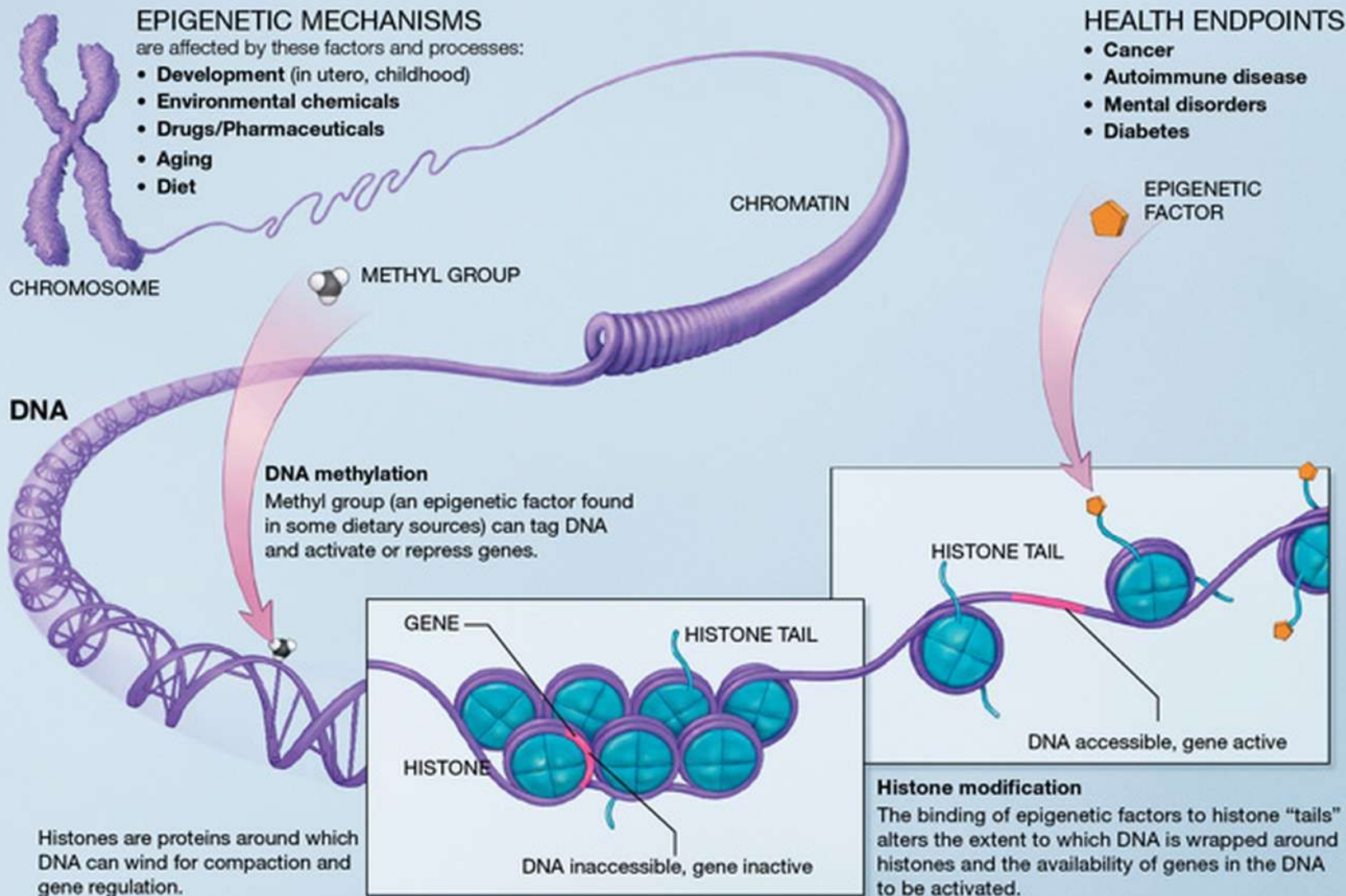
- ▶ Bipolar Disorder and Major Depressive disorders
 - ▶ first degree relatives 8 – 18x
 - ▶ monozygotic twins 33-90% concordance
- ▶ Schizophrenia

Prevalence of schizophrenia in population

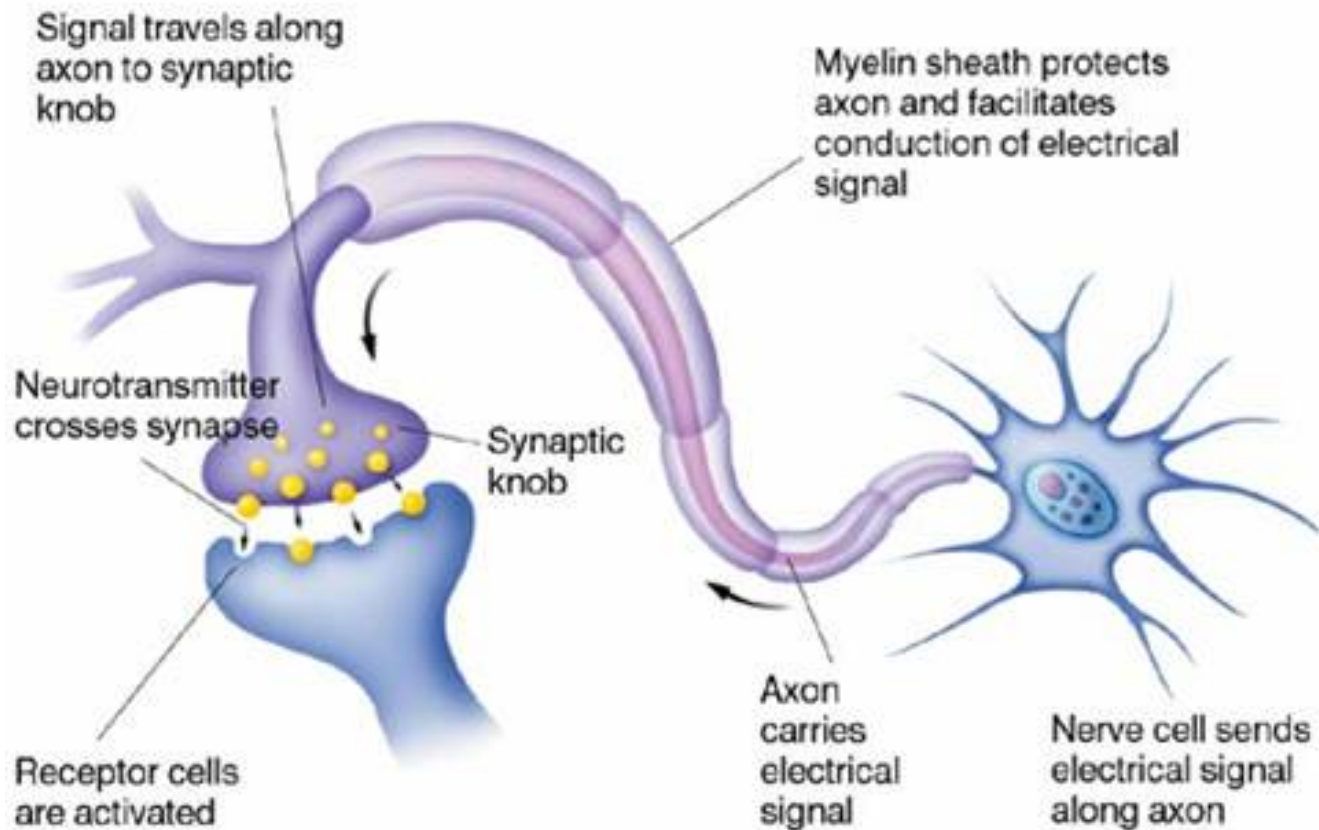
Population	Prevalence
General population	1
non-twin sibling	8
Child with 1 parent with schizophrenia	12
DZ of schizophrenia patient	12
Child with 2 parent with schizophrenia	40
MZ of schizophrenia patient	47

Genetic factor





Biochemical Factors



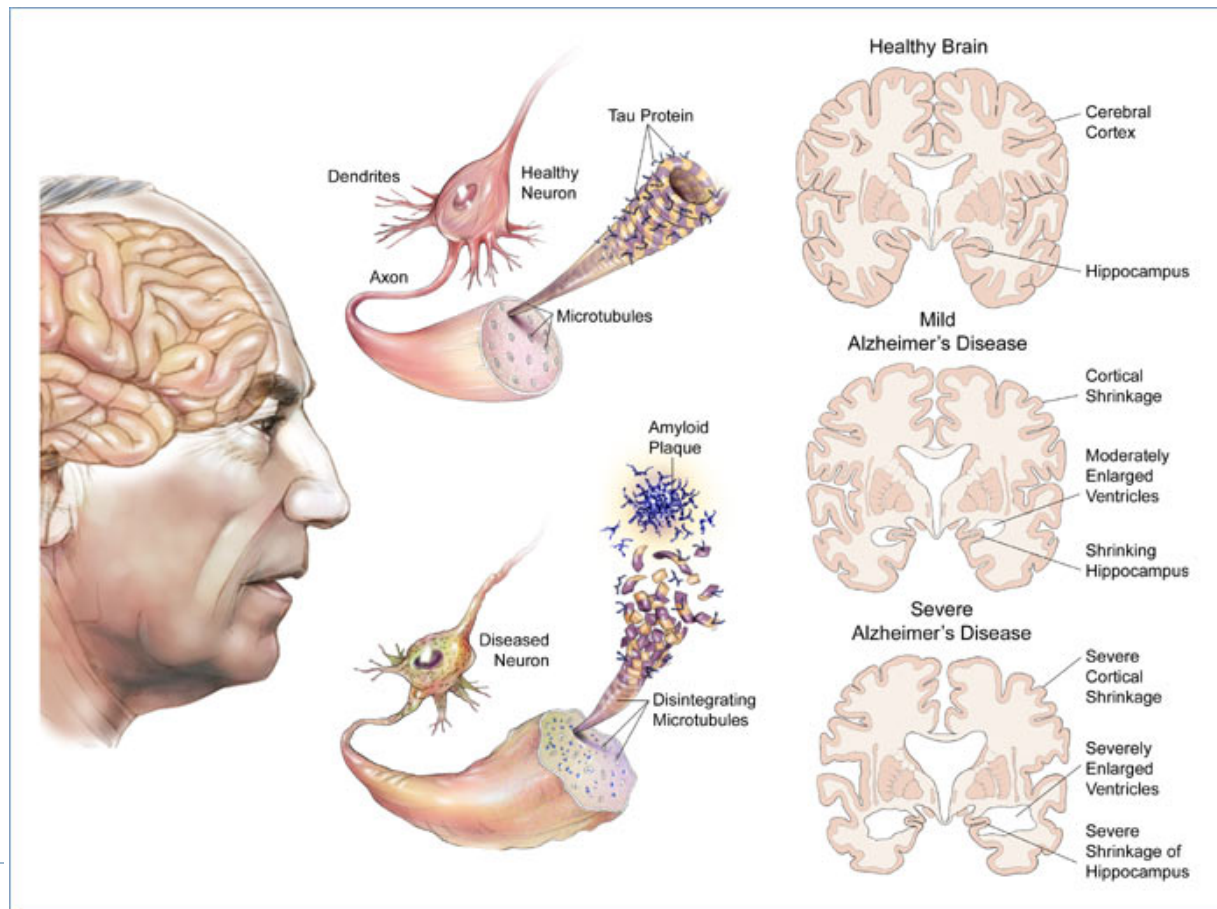
Biochemical Factors

- ▶ Schizophrenia
 - ▶ Increase limbic dopaminergic activity
 - ▶ Decrease frontal dopaminergic activity
- ▶ Depression; serotonin depletion
- ▶ Anxiety; dysregulation of serotonin, norepinephrine, GABA



Neuropathology

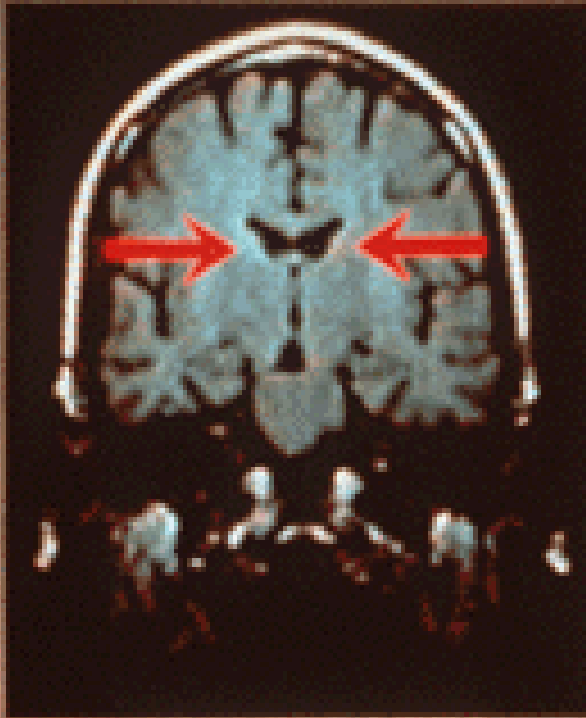
► Alzheimer's disease



Neuropathology

SCHIZOPHRENIA IN MONOZYGOTIC TWINS

Pair no.2: 44 year old males



UNAFFECTED



AFFECTED

Psychoneuroendocrinology

- ▶ refers to the structural and functional relations between hormonal system and CNS and the behaviors that modulate and arise from it.



Psychoneuroendocrinology

▶ HYPOTHALAMIC-PITUITARY-ADRENAL AXIS

▶ Depression

- > increased cortisol concentration
- > failure to suppress cortisol in response to dexamethasone
- > increased adrenal size and sensitivity to ACTH
- > blunted ACTH response to CRH
- > increased concentrations of CRH in the brain



Psychoneuroendocrinology

▶ HYPOTHALAMIC-PITUITARY-GONADAL AXIS

▶ Testosterone

- > associated with increased violence and aggression in animals
- > anabolic-androgenic steroids – euphoria, increased energy, sexual arousal; irritability, mood swings, violent feelings, anger and hostility;

▶ Estrogen

- > Estrogen has mood-enhancing properties
- > Premenstrual dysphoric disorder

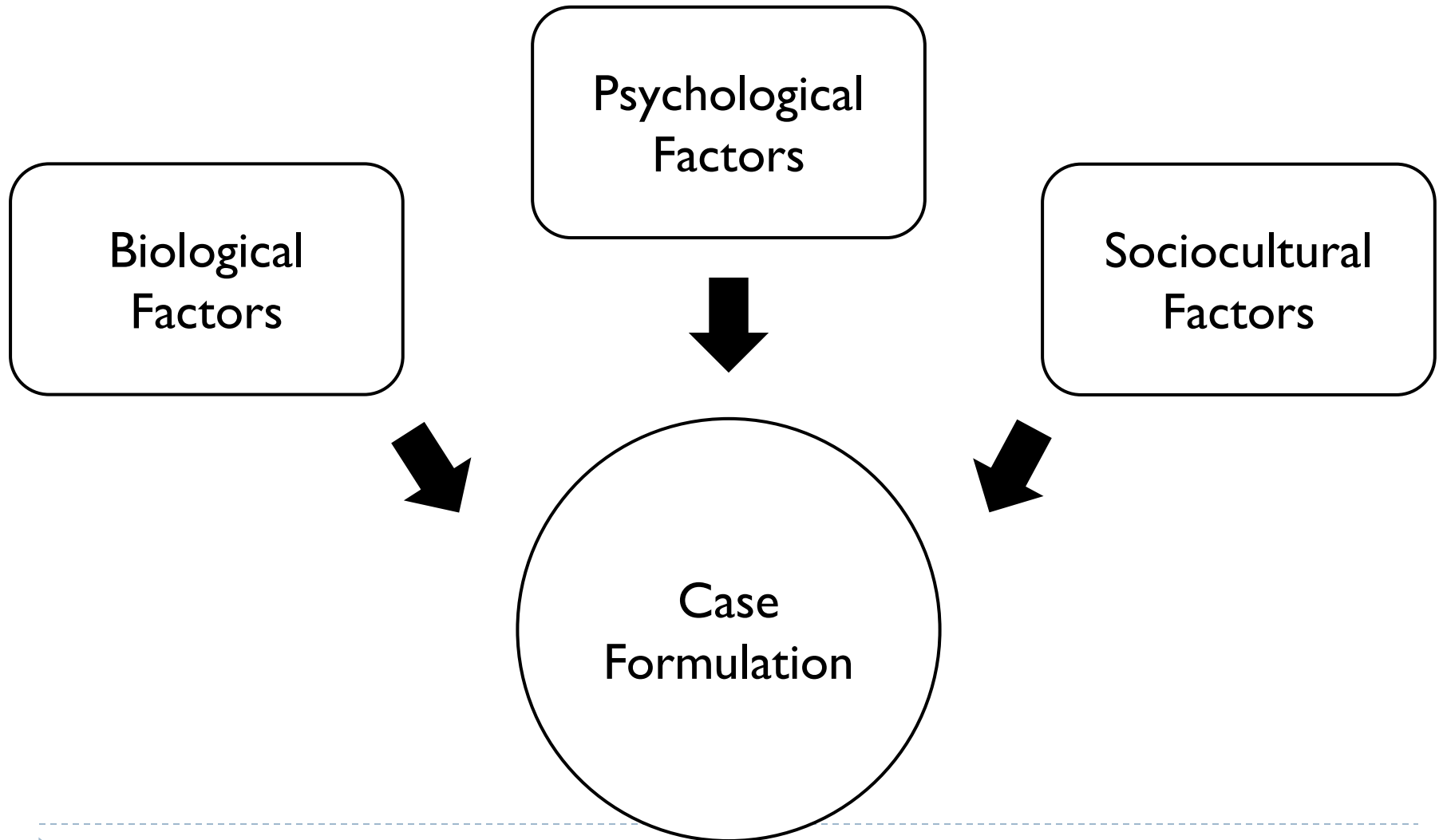


1. Biological Factors

- ▶ Genetic factors
- ▶ Biochemical Factors
- ▶ Neuropathology
- ▶ Psychoneuroendocrinology
- ▶ Psychoneuroimmunology
- ▶ Sleep neurophysiology



Bio-Psycho-Social model



2. Psychological factors

- ▶ Psychoanalytic theory
- ▶ Cognitive theory
- ▶ Learning theory



Psychoanalytic theory



Sigmund Freud



Psychoanalytic theory

▶ Topographical model

▶ จิตสำนึก (the conscious)

เป็นส่วนของจิตใจที่การรับรู้สิ่งเร้าจากทั้งภายนอกหรือภายใน (ทั้งร่างกายและจิตใจ) ถูกนำขึ้นสู่การตระหนักรู้ (awareness)

▶ จิตก่อนสำนึก (the preconscious) ระลึกได้เมื่อตั้งใจ

▶ จิตไร้สำนึก (the unconscious) เป็นส่วนของจิตใจที่บุคคลไม่ตระหนักถึง

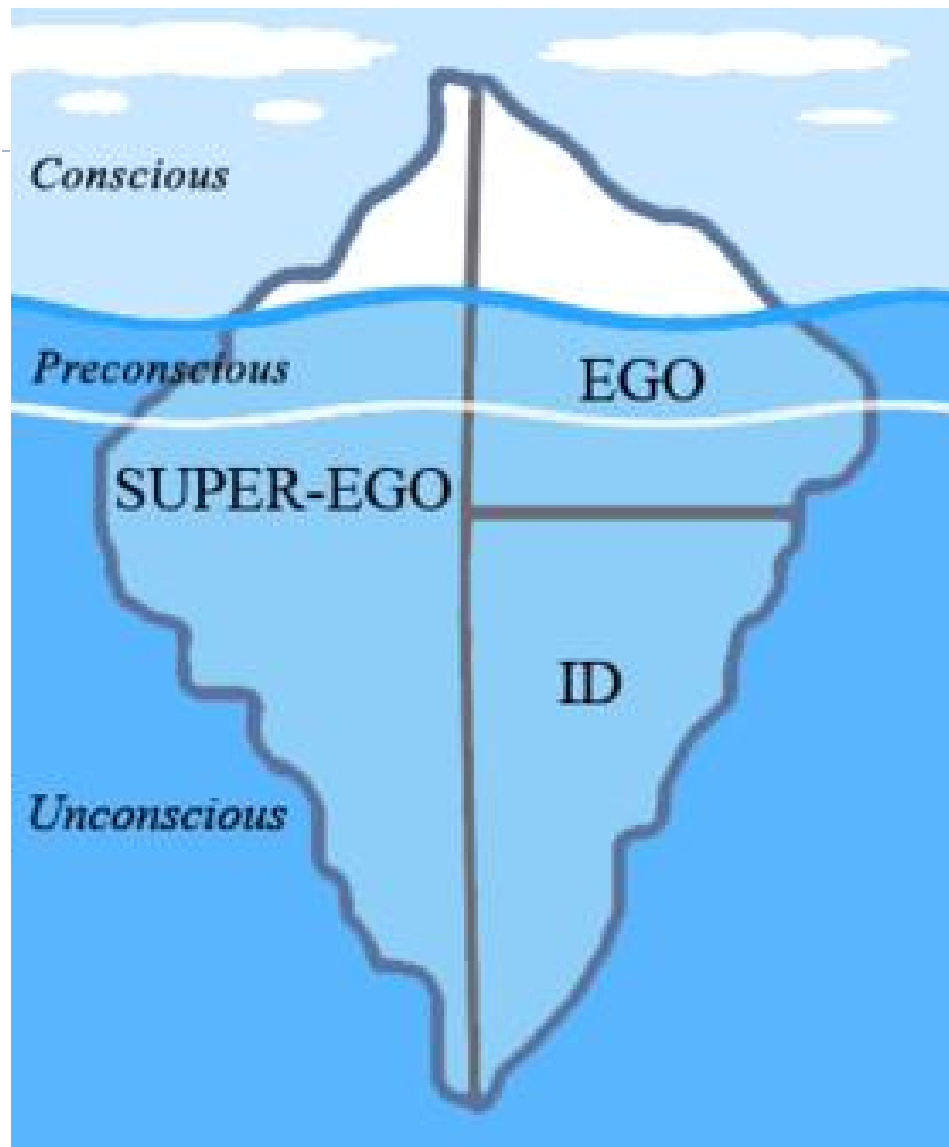
▶ Structural model

▶ ID สัญชาตญาณ เป็นไปตาม pleasure principle

▶ EGO ทำหน้าที่ประสานงาน id กับ superego รับรู้ตามความเป็นจริง

▶ SUPEREGO ความผิดชอบชั่วดี





Defense mechanism

▶ Narcissistic Defenses

- ▶ Denial; Avoiding the awareness of some painful aspect of reality by negating sensory data
- ▶ Distortion; Grossly reshaping external reality to suit inner needs
- ▶ Projection; Perceiving and reacting to unacceptable inner impulses and their derivatives as though they were outside the self



Defense mechanism

▶ Immature Defenses

- ▶ Acting out; Expressing an unconscious wish or impulse through action
- ▶ Introjection; Internalizing the qualities of an object
- ▶ Passive-aggressive; Expressing aggression toward others indirectly through passivity
- ▶ Somatization; Converting psychic derivatives into bodily symptoms and tending to react with somatic manifestations



Defense mechanism

▶ Neurotic Defenses

- ▶ Displacement; Shifting an emotion or drive from one idea or object to another
- ▶ Intellectualization; Excessively using intellectual processes to avoid affective expression or experience
- ▶ Rationalization; Offering rational explanations in an attempt to justify attitudes, beliefs, or behavior that may otherwise be unacceptable
- ▶ Reaction formation; Transforming an unacceptable impulse into its opposite
- ▶ Dissociation; Temporarily but drastically modifying a person's character or one's sense of personal identity to avoid emotional distress



Defense mechanism

▶ Mature Defenses

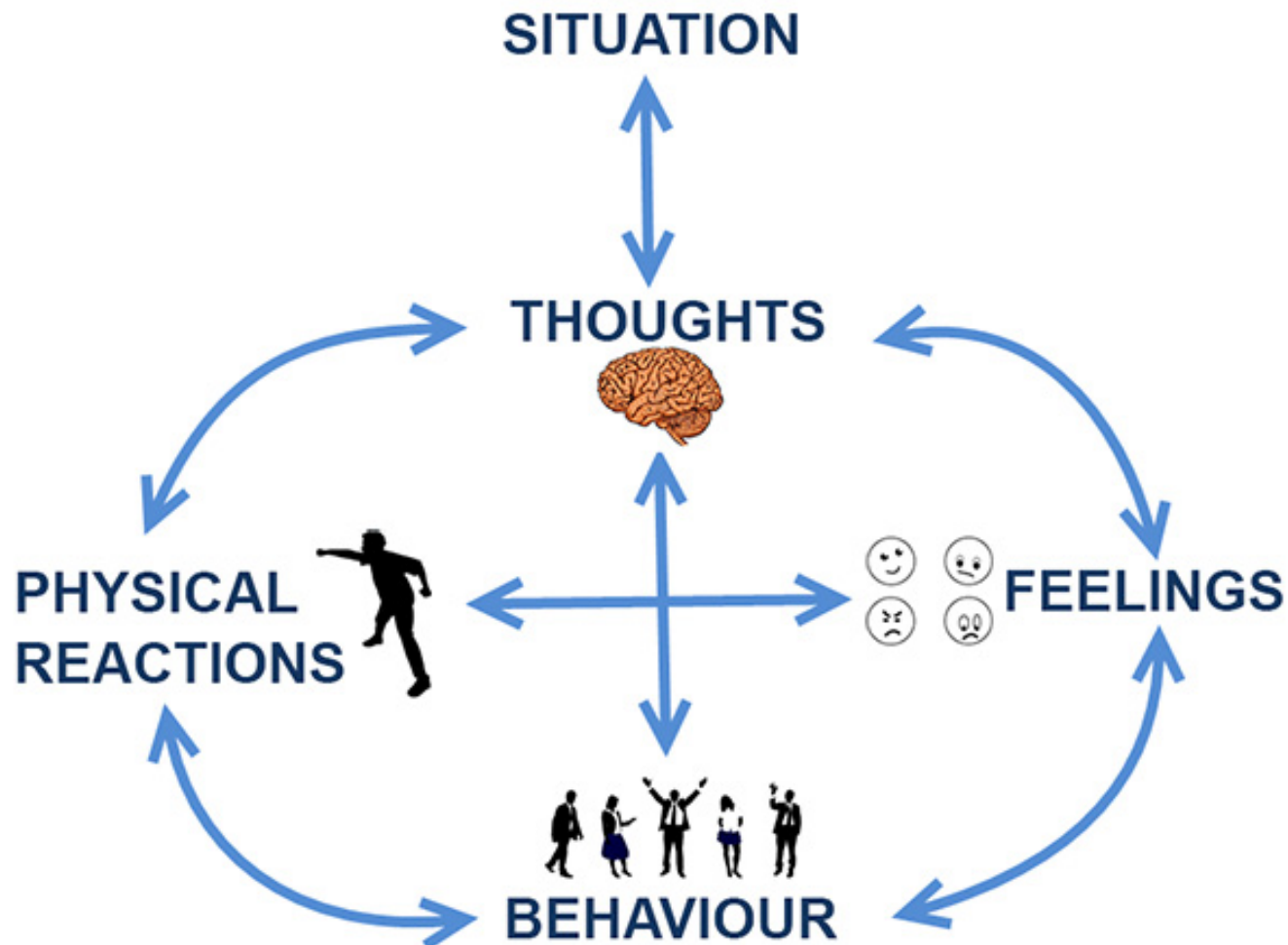
- ▶ Altruism; Using constructive and instinctually gratifying service to others to undergo a vicarious experience
- ▶ Sublimation; Achieving impulse gratification and the retention of goals but altering a socially objectionable aim or object to a socially acceptable one
- ▶ Suppression; Consciously or semiconsciously postponing attention to a conscious impulse or conflict



ตัวอย่าง

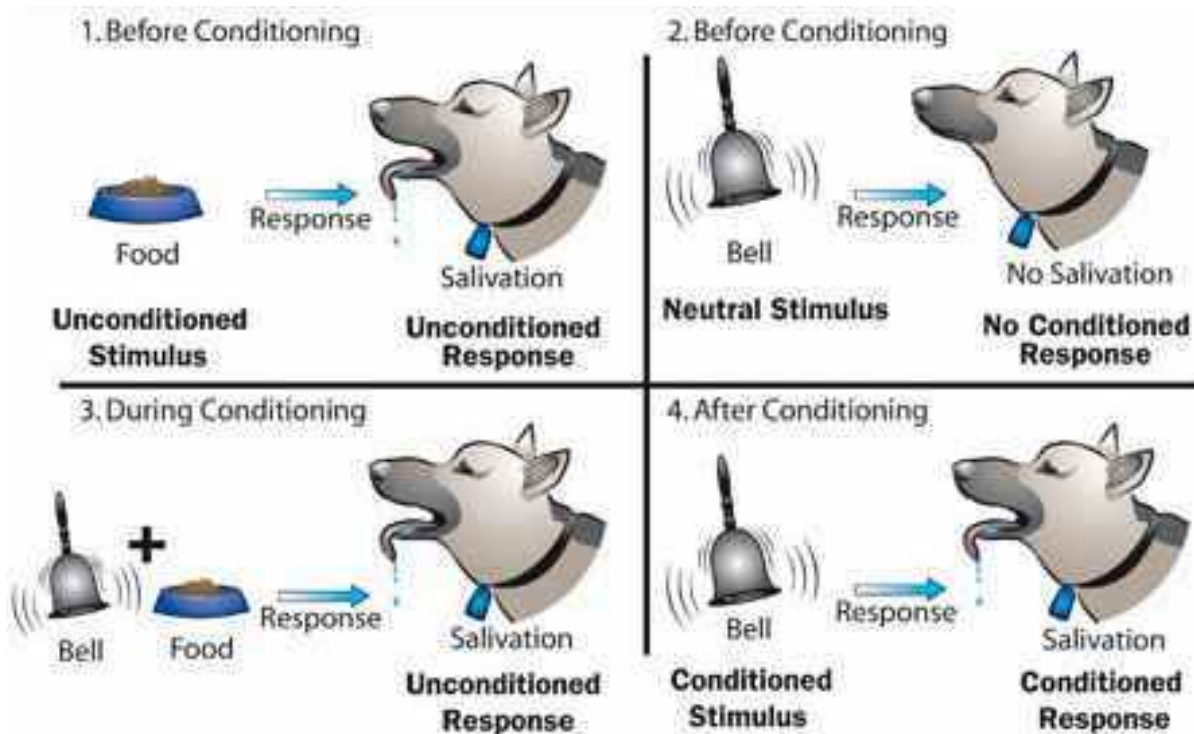
- ▶ Schizophrenia – denial, distortion, projection, regression
- ▶ Depression – introjection
- ▶ Mania – reaction formation, denial
- ▶ Panic – reaction formation, somatization, externalization
- ▶ Phobia – displacement, projection, avoidance
- ▶ OCD – isolation of affect, reaction formation, undoing





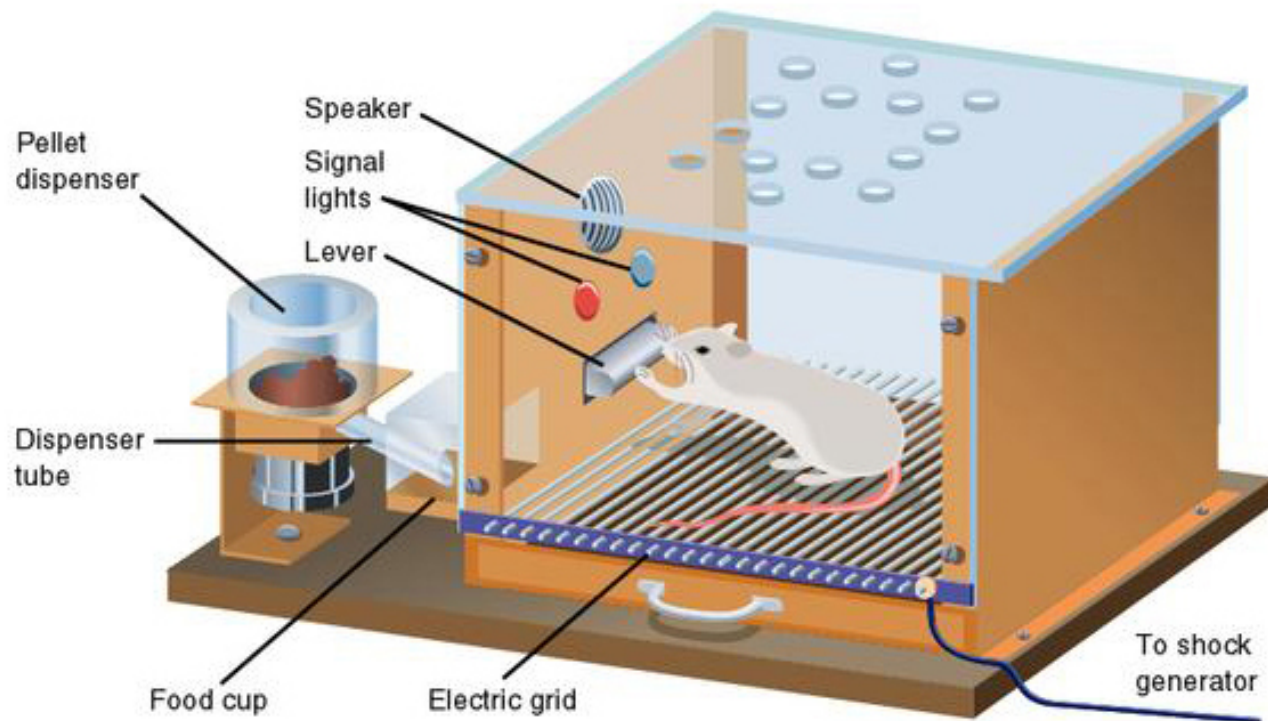
Learning theory

► Classical Conditioning (Pavlov)



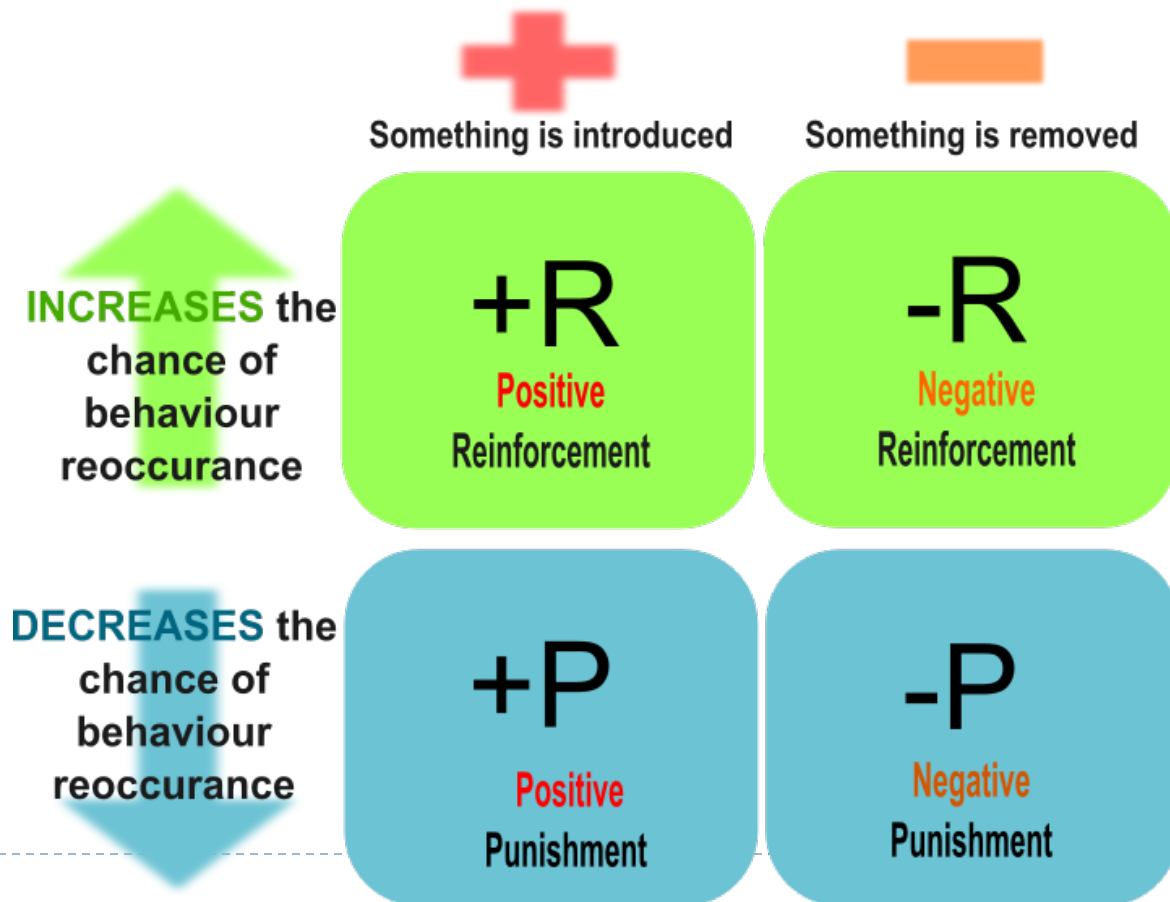
Learning theory

► Operant Conditioning (B. F. Skinner)

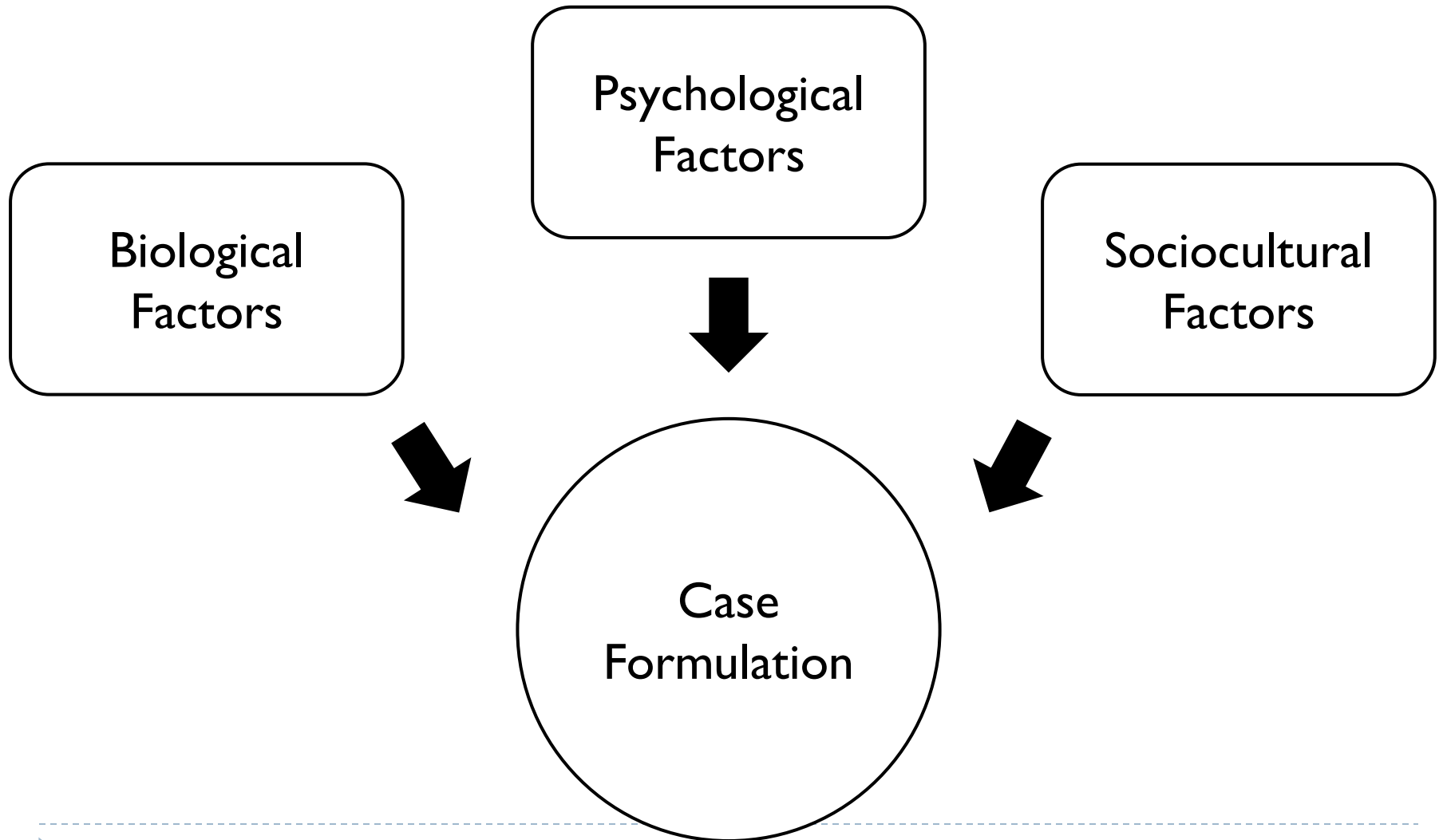


Learning theory

► Operant Conditioning (B. F. Skinner)



Bio-Psycho-Social model



3. Sociocultural factors

- ▶ Stress, environment, financial, social support
- ▶ Family dynamics in Schizophrenia
 - ▶ Expressed Emotion
 - ▶ Overt criticism, hostility, overinvolvement
 - ▶ High EE → increase relapse rate
 - ▶ Double bind; conflicting parental message



Sociological

▶ STRESS DIATHESIS MODEL

A person may have a specific vulnerability (diathesis) that, when acted on by a stressful influence, allows the symptoms of schizophrenia to develop.

-integrates biological, psychosocial, and environmental factors.



Sociological

▶ SOCIAL CAUSATION HYPOTHESIS

The stresses experienced by members of low socioeconomic group contribute to the development of schizophrenia.



Sociological

▶ SOCIAL LEARNING THEORY

A person can learn by imitating the behavior of another person, but personal factors are involved

- relies on role models, identification, and human interactions.



4 P's diagnostic formulation

- ▶ **1. Predisposing factors** คือ ปัจจัยเสี่ยงที่มีมาก่อนป่วย
- ▶ **2. Precipitating factors** คือ ปัจจัยกระตุ้นให้เกิดอาการ
- ▶ **3. Perpetuating factors** คือ ปัจจัยที่เสริมให้อาการไม่หาย
- ▶ **4. Protective factors** คือ ปัจจัยปกป้องให้บุคคลปรับตัวอย่างเหมาะสม



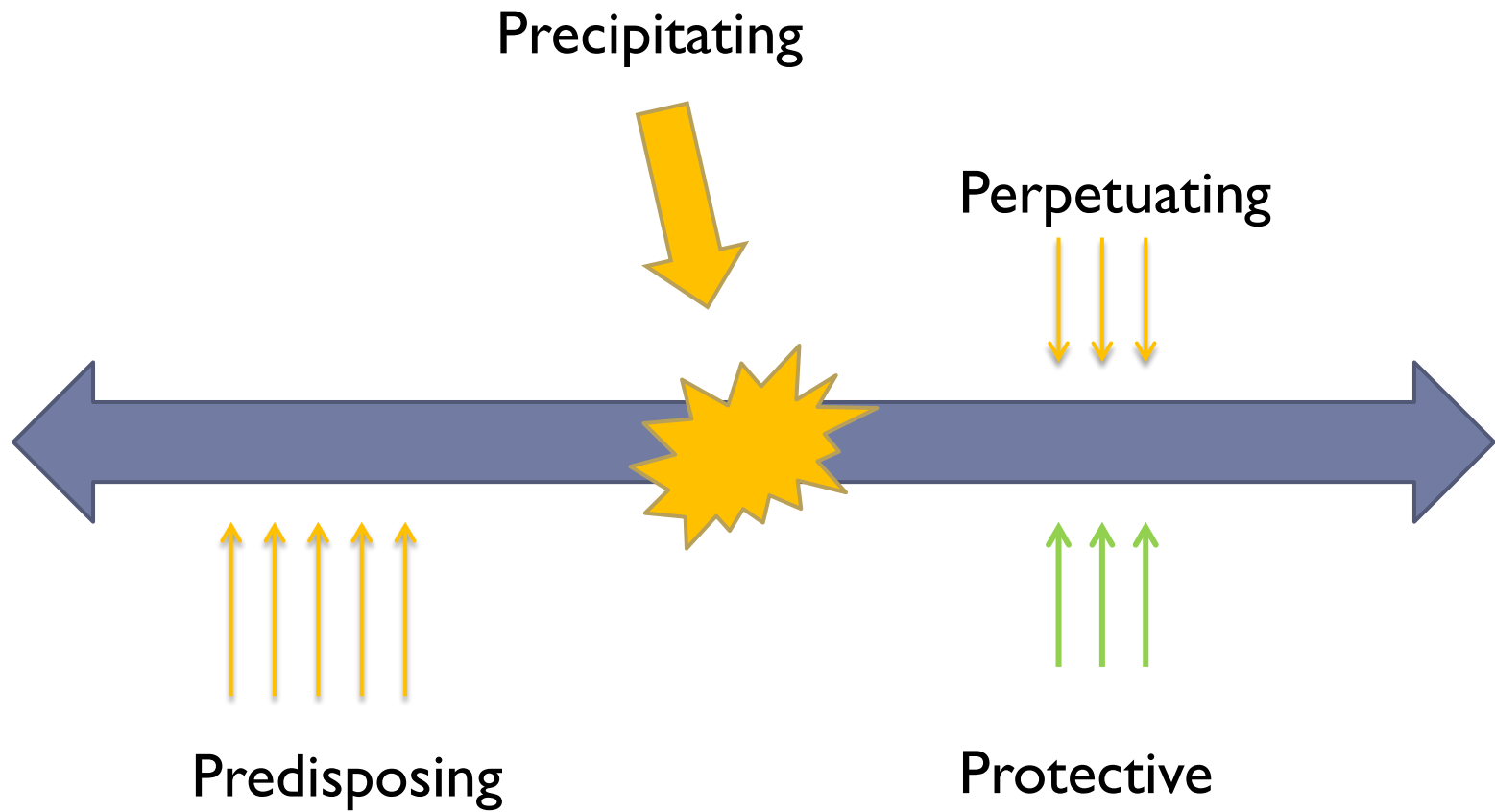


Table 1. Formulation matrix

	<i>Biological</i>	<i>Psychological</i>	<i>Social</i>
Predisposing	• Genetic • Birth trauma • Brain injury • Illness – psychiatric, physical • Medication • Drugs/alcohol • Pain	• Personality • Modelling • Defences (unconscious) • Coping strategies (conscious) • Self-esteem • Body image • Cognition	• Socio-economic status • Trauma
Precipitating	• Medication • Trauma • Drugs/alcohol • Acute illness • Pain	• Stage of life • Loss/grief • Treatment • Stressors	• Work • Finances • Connections • Relationships
Perpetuating	↓	↓	↓
Protective	• Physical Health	• Engagement • Insight • Adherence • Coping strategies • Intelligence	

(reproduced from *Psych-Lite: Psychiatry that's easy to read*. Selzer and Ellen, 2010, Sydney, page 22, table 4.1 with permission from McGraw-Hill Australia).

Case of Helen

- ▶ Helen was fired from her job one month ago because she started making numerous mistakes and had trouble concentrating.
- ▶ About three months ago she started feeling "down" after a break-up with a man she had been dating for a few months.
- ▶ She has trouble falling asleep and has noticed a significant decline in her appetite. She feels like a failure and believes that no one will want to hire her again.



Case of Helen

- ▶ She has thoughts of committing suicide but admits, "I could never do it."
- ▶ The only thing that seems to help is when she participates in a bible-reading group every Tuesday night. She explains, "During that time I'm more like my old self and at least that night I can sleep."
- ▶ She also reports that her mood improves when she visits her friends.
- ▶ However, she reports such low energy throughout the day that she is unable to schedule a job interview.



Case of Helen

- ▶ She had a similar episode about two years ago after she was laid off from her former job.
- ▶ She reports that it took four months before she began feeling "normal" again and positive about herself.
- ▶ Her history indicates that her mother had severe depression and was hospitalized on several occasions when Helen was young.
- ▶ She describes her as “negative” and often absent in her youth.
- ▶ However, Helen always did well in school and had an active social life.
- ▶ Her work history has been very consistent up to her lay off.



